1861 Complete

DECEMBER, MDCCCLXI.

THE ZOOLOGIST:

A

POPULAR MONTHLY MAGAZINE

OF

NATURAL HISTORY,

AND

JOURNAL FOR RECORDING FACTS AND ANECDOTES

RELATING TO

QUADRUPEDS, BIRDS, REPTILES, FISHES, ANNELIDES,
INSECTS, WORMS, ZOOPHYTES, &c.

THEIR HABITS, FOOD, RETREATS, OCCASIONAL APPEARANCE,
MIGRATIONS, NESTS AND YOUNG.

No. CCXXXVII.

LONDON:
JOHN VAN VOORST, PATERNOSTER ROW.

Price ONE SHILLING.

TO CORRESPONDENTS.

PREPAYMENT.

I beg to remind my readers that the subscription for 1861 has expired, and that the prepayment for 1862 is now due, and must be made before the end of the present month. No plan ever gave so great satisfaction to all parties as this of prepayment; all complaints of irregularity in delivery have ceased, and every Subscriber has his copy on or before the 1st of each month. I must, however, remind my Subscribers that those prepaying for only a portion of the year have no claim to double numbers; those paying for the twelve months in advance are entitled to double numbers, however frequently they may occur.

I avail myself of this opportunity to thank most heartily those gentlemen whose constant co-operation has contributed so largely to bring the 'Zoologist' to its present state of excellence as well as favour with the public.

I wish also to beg my Subscribers to observe that the number of pages in the 'Zoologist' has been, during the last few years, increased from thirty-two to forty pages, and that this is totally independent of double numbers, which are invariably given to prepaid Subscribers without extra charge. The first volume contained 384 pages, the present volume contains 528 pages, and the whole of this increase has been in the smaller type: thus the periodical has not only increased in bulk, but has comparatively diminished in price.

Owing to a very general desire among naturalists to obtain a paper of my own intituled "Collected Observations on the Nests and Eggs of British Birds," the numbers containing that paper have met with an unprecedented and unexpected sale: with a view of arresting this drain on any particular number I have reprinted the paper in question, and having had it bound in a durable cloth cover, now offer it to ornithologists, under the title of 'Birdsnesting,' at one shilling per copy or nine shillings for twelve copies.

I have also been induced to issue a second edition of the 'Insect Hunters,' that little work having been more than a year out of print.

I am aware that neither of these publications are of great importance to the thoroughly instructed naturalist: such I do not presume to teach: but I think the simple style in which they are written will recommend them as presents to be given by expert naturalists to those who are yet beginners, and I shall feel gratified and obliged if any of my readers view the subject in the same light and procure them for this purpose.

Mr. Stainton's 'Annual' will be published about the middle of the month, at two shillings and sixpence, and will be supplied from this office, as usual, to any entomologist who inclines to prepay the amount.

	£	*s.*	*d.*
'Zoologist,' twelve 'Birdsnesting,' 'Insect Hunters' and 'Annual'	1	6	0
'Zoologist' and twelve 'Birdsnesting'	1	1	0
'Zoologist,' 'Insect Hunters' and 'Annual' ...	0	17	0
'Zoologist' and 'Insect Hunters' or 'Annual' ...	0	14	6
'Zoologist' alone	0	12	0

Please make Post-Office Orders payable *to* Edward Newman, 9, Devonshire Street, Bishopsgate, N.E., and *at* the Bishopsgate Money-Order Office. In paying by Stamps, please *not* to wet them, with an idea of greater security; this common practice is always most annoying to the receiver, and sometimes causes the loss of one or more stamps.

The King of the Gorillas.—In M. Du Chaillu's book may be found the most incompatible exploits of his royal gorilla. Sometimes it is a tottering cripple; then the strongest beast of the forest; occasionally the determined foe of man; then, at once, flying before his presence. Never in the trees (its proper habitat), but always on the ground! At one time roaring lustily (apes never roar), and at another time punishing itself by beating its unoffending breast so unmercifully that the sound of the strokes might be heard a full mile off. This king—this Proteus ape—felled his black servant to the ground by a single blow from its giant fore leg; and then it frightfully lacerated the abdomen—not with its teeth (the proper weapons), but with its nails, which are flat, and as impotent as our own for the performance of such a butchery. In fine, let M. Du Chaillu and the learned naturalists who encourage him say and think what they choose of the "king of the gorillas," *alias* the large black ape of Western Africa, its true position on the page of Natural History must certainly come to this, *viz.*—when on a tree it is a paragon of perfection in the eyes of an omnipotent Creator; but when on the ground it appears a "bungled composition of Nature."—*Charles Waterton; Walton Hall, near Wakefield, October* 20, 1861.—*From the 'Athenæum.'*

Notes on the Food of Birds. By HENRY L. SAXBY, Esq.

IN skinning and dissecting birds it has always been my habit to examine the contents of the stomach, with the view of acquiring such knowledge of the nature of their food as could be afforded by this means. The result of such examinations is almost invariably entered in my note-book at the time; therefore, although the accompanying list may contain but little that is absolutely new, its accuracy may be relied upon, and may perhaps be accepted as a sufficient apology for its length.

The name of any article of food printed in italics implies that although I have not been able to recognise it within the stomach of the bird, I have both seen and handled it after it has been left by the bird.

Peregrine Falcon (*Falco peregrinus*). Flesh, bones of birds, feathers of golden plover, bones and fur of rabbits, *ringed plover, kittiwake, wild duck.*

Hobby (*F. subbuteo*). Twite, large beetles.

Merlin (*F. æsalon*). Snow bunting, twite, Goërius olens, *blackbird, redwing, fieldfare.*

Kestrel (*F. tinnunculus*). Mice, large beetles, remains of small birds, *blackbird, yellowhammer, skylark, rock pipit.*

Sparrowhawk (*F. nisus*). Mice, yellowhammer.

Buzzard (*F. buteo*). Partridge, fieldfare, redwing, brambling, greenfinch, great titmouse, mice, earthworms.

Ashcoloured Harrier (*F. cineraceus*). Remains of small birds, earth-worms.

Longeared Owl (*Strix otus*). Mice, chaffinch, brambling, golden-crested regulus.

Shorteared Owl (*S. brachyotus*). Twite, tree creeper.

Barn Owl (*S. flammea*). Mice, young rats, house sparrow, remains of small birds.

Tawny Owl (*S. aluco*). Chaffinch, brambling, bones of fish.

Snowy Owl (*S. nyctea*). Rabbit.

Little Owl (*S. passerina*). Mice, spiders, large beetles, remains of small birds.

Great Gray Shrike (*Lanius excubitor*). Large beetles, *pied wagtail.*

Redbacked Shrike (*L. collurio*). Flesh, large beetles, a species of cabbage butterfly, Bombus terrestris, *meadow pipit*, *chaffinch*, *blue titmouse.*

Woodchat Shrike (*L. rufus*). Large insects of various kinds.

Spotted Flycatcher (*Muscicapa grisola*). Small moths, gnats, house flies.

Pied Flycatcher (*M. atricapilla*). Small winged insects.

Dipper (*Cinclus aquaticus*). Water insects, fish-spawn, small trout.

Missel Thrush (*Turdus viscivorus*). Slugs, fine roots, earth-worms, berries of hawthorn and of dog-rose.

Fieldfare (*T. pilaris*). Small white slugs, land shells, earth-worms, fine roots, berries of hawthorn.

Song Thrush (*T. musicus*). Insects, small slugs, earth-worms, *large garden snail.*

Redwing (*T. iliacus*). Land shells, insects, hawthorn berries.

Blackbird (*T. merula*). Insects, earth-worms, gooseberries, strawberries, ivy berries, radish seed.

Ring Ouzel (*T. torquatus*). Insects, Clausilia ——— ?

Golden Oriole (*Oriolus galbula*). Insects.

Hedgesparrow (*Accentor modularis*). Insects, small earth-worms, turnip seed; and, upon one occasion, some fragments of oats.

Robin Redbreast (*Sylvia rubecula*). Earth-worms, seeds, caterpillars, small beetles.

Redstart (*S. phœnicurus*). Insects, small earth-worms.

Black Redstart (*S. tithys*). Small beetles.

Stonechat (*S. rubicola*) and Whinchat (*S. rubetra*). Small beetles, spiders, worms, caterpillars.

Wheatear (*S. œnanthe*). Insects of various kinds; minute land shells.

Sedge Warbler (*S. phragmitis*). Aquatic insects, small earth-worms.

Great Sedge Warbler (*S. turdoides*). Large water beetles; a jelly-like substance, probably the eggs of Limnæa stagnalis, which was very abundant in the pond by which the bird was killed.

Reed Wren (*S. arundinacea*). Aquatic insects.

Nightingale (*S. luscinia*). Small beetles, ants.

Blackcap (*S. atricapilla*). Small winged insects, raspberry seeds.

Garden Warbler (*S. hortensis*). Small beetles, smooth green caterpillars, spiders of various kinds.

Whitethroat (*S. cinerea*). Insects, eggs of spiders.

Lesser Whitethroat (*S. curruca*). Gnats, house-flies.

Wood Wren (*S. sibilatrix*). Small winged insects, portions of Ephemeræ.

Willow Wren (*S. trochilus*). Small winged insects.

Chiffchaff (*S. rufa*). Small winged insects, house flies, small beetles, caterpillars, bodies of butterflies, minute eggs of insects.

Dartford Warbler (*S. provincialis*). Gnats, Epeira Diadema.

Goldencrested Regulus (*Regulus cristatus*). Small insects.

Firecrested Regulus (*R. ignicapillus*). Small insects and their eggs.

Great Titmouse (*Parus major*). Flesh, beetles, flies, caterpillars, earth-worms; *young of chaffinch taken from the nest.* I have seen it boring holes in apples.

Blue Titmouse (*P. cæruleus*). Flesh, insects.

Cole Titmouse (*P. ater*). Insects, seeds, bread crumbs.

Marsh Titmouse (*P. palustris*). Insects.

Longtailed Titmouse (*P. caudatus*). Insects, seeds, fragments of buds.

White Wagtail (*Motacilla alba*). Aquatic insects.

Pied Wagtail (*M. Yarrellii*). Aquatic insects, gnats, fish bones, fragments of shells.

Gray Wagtail (*M. boarula*). Water beetles.

Grayheaded Wagtail (*M. flava*). Small worms, larvæ, aquatic insects, small univalves; occasionally small winged insects.

Ray's Wagtail (*M. campestris*). Insects. The stomach of specimens killed upon the sea-shore contained common sand-hoppers (*Talitrus Locusta*) and a species of fly which is very abundant among decaying sea-weed.

Tree Pipit (*Anthus arboreus*). Winged insects.

Meadow Pipit (*A. pratensis*). Insects, earth-worms, caterpillars.

Rock Pipit (*A. obscurus*). Sand-hoppers, flies of various kinds, larva of flesh-fly (*Sarcophaga carnaria*). I have sometimes seen this bird in the garden at Halligarth, usually upon the ground, but now and then in trees; upon such occasions I have found Aphides and small gray slugs in the stomach.

Skylark (*Alauda arvensis*). Insects, grass seeds, earth-worms.

Wood Lark (*A. arborea*). Beetles, small larvæ.

Snow Bunting (*Emberiza nivalis*). Grain, seeds, insects, small fibrous roots.

Common Bunting (*E. miliaria*). Grain, seeds, insects, sycamore buds.

Blackheaded Bunting (*E. schœniclus*). Water beetles, grass seeds.

Yellowhammer (*E. citrinella*). Insects, eggs of spiders, seeds of wild mustard (*Sinapis arvensis*).

Cirl Bunting (*E. cirlus*). Seeds of grasses.

Ortolan Bunting (*E. hortulana*). Insects, seeds, small caterpillars.

Chaffinch (*Fringilla cœlebs*). Grain, caterpillars, moths, seeds and cotyledons of various cruciferous plants.

Brambling (*F. montifringilla*). Grain, insects, seeds.

Tree Sparrow (*F. montana*). Insects, seeds, grubs, spiders.

House Sparrow (*F. domestica*). Insects, caterpillars, grain, young gooseberries, peas, seeds of various kinds.

Greenfinch (*F. chloris*). Insects, grain, small caterpillars.

Hawfinch (*F. coccothraustes*). Beech-mast.

Goldfinch (*F. carduelis*). Insects, seeds.

Siskin (*F. spinus*). Grass seeds.

Linnet (*F. cannabina*). Seeds of grasses, groundsel and thistle.

Lesser Redpole (*F. linaria*). Minute insects and their eggs; fragments of quartz, pieces of elm buds. I have never found the latter in such quantity as to induce me to depart from my belief that they are accidentally introduced into the stomach along with the insects which the bird obtains by breaking open buds.

Mealy Redpole (*F. borealis*). Seeds, minute insects, fine gravel.

Twite (*F. montium*). Seeds, insects, grain. In Shetland this species is very destructive to young turnips.

Bullfinch (*Loxia pyrrhula*). Buds of sycamore and birch; groundsel seeds.

Crossbill (*L. curvirostra*). Seeds of Scotch fir, Aphides; small caterpillars, which the bird finds in rolled-up elm leaves.

Starling (*Sturnus vulgaris*). Insects, flesh, winged insects, seeds, grain, sand-hoppers, pieces of fish (both fresh and salted).

Rosecoloured Pastor (*Pastor roseus*). Remains of beetles, and among them those of Geotrupes putridarius in considerable quantity.

Raven (*Corvus corax*). Flesh, large insects, grain, pieces of fish (both fresh and salted), *domestic fowls, ducks, eggs of various kinds.*

Crow (*C. corone*). Mice, large insects, common cockchaffer (*Melolontha vulgaris*), barley.

Hooded Crow (*C. corax*). Pieces of fish, shell-fish of several kinds, oats, large beetles, earth-worms.

Rook (*C. frugilegus*). Worms, large insects, *potatoes.*

Jackdaw (*C. monedula*). Insects.

Magpie (*C. pica*). Flesh, insects, cockchaffers and their larvæ, oats.

Jay (*C. glandarius*). Seeds, land-shells. The stomach of a specimen examined by me, in 1855, contained a few small seeds and the head of a small hobnail.

Green Woodpecker (*Picus viridis*). Insects, larvæ of ants, turnip seed.

Spotted Woodpecker (*P. major*). Small insects, beetles, earthworms, seeds of mountain ash.

Lesser Spotted Woodpecker (*P. minor*). Small insects.

Wryneck (*Yunx torquilla*). Small insects.

Creeper (*Certhia familiaris*). Small insects, eggs of spiders.

Wren (*Troglodytes europæus*). Small insects, sand-hoppers, earthworms.

Hoopoe (*Upupa epops*). Beetles, small flies, grubs.

Nuthatch (*Sitta europæa*). Seeds.

Cuckoo (*Cuculus canorus*). Caterpillars, small insects.

Kingfisher (*Alcedo ispida*). Fish, large beetles.

Swallow (*Hirundo rustica*), Martin (*H. urbica*), Sand Martin (*H. riparia*) and Swift (*Cypselus apus*). Winged insects.

Nightjar (*Caprimulgus europæus*). Cockchaffers, large moths.

Ring Dove (*Columba palumbus*). Cabbage-leaves, peas, grain, beech-mast, seeds of Ranunculus acris.

Stock Dove (*C. œnas*). Small seeds.

Rock Dove (*C. livia*). Grain, seeds, roots of couch grass (*Triticum repens*).

Turtle Dove (*C. turtur*). Leaves, corn.

Partridge (*Perdix cinerea*). Leaves, insects, hawthorn berries.

Redlegged Partridge (*P. rubra*). Corn, small seeds, leaves.

Quail (*P. coturnix*). Corn, seeds, small insects.

Stone Curlew (*Œdicnemus crepitans*). Insects, earth-worms, small sharp stones, small pieces of heather.

Golden Plover (*Charadrius pluvialis*). Fine roots, seeds of Carices, insects, earth-worms, sea-weed, mud, gravel.

Dotterell (*C. morinellus*). Earth-worms.

Ringed Plover (*C. hiaticula*). Marine and fresh-water insects, earth-worms, sand-hoppers, fragments of shells, small fibres of plants, gravel.

Kentish Plover (*C. cantianus*). Sand, marine insects.

Little Ringed Plover (*C. minor*). Insects, sand, a few fibres of plants.

Gray Plover (*Vanellus melanogaster*). Earth-worms.

Lapwing (*V. cristatus*). Earth-worms, grubs, marine and fresh-water insects, gravel.

Turnstone (*Strepsilas interpres*). Marine insects, pieces of sea-weed, small univalves.

Sanderling (*Calidris arenaria*). Marine insects, small univalves.

Oystercatcher (*Hæmatopus ostralegus*). Marine and fresh-water insects, limpets, shrimps of several species, earth-worms.

Heron (*Ardea cinerea*). Water vole, mice, frogs, trout, large water insects and their larvæ, Dytiscus marginalis. I once saw a heron kill a small duckling, but without making any attempt to swallow it afterwards.

Bittern (*A. stellaris*). Trout, dace, large beetles.

Curlew (*Numenius arquata*). Marine and fresh-water insects, earth-worms, gravel.

Whimbrel (*N. phæopus*). Marine and fresh-water insects, earth-worms, small gray slugs.

Redshank (*Totanus calidris*). Insects, small marine univalves.

Green Sandpiper (*T. ochropus*). Small beetles.

Wood Sandpiper (*T. glareola*). Fibres of plants, minute aquatic insects.

Common Sandpiper (*T. hypoleucos*). Small pupæ, marine and fresh-water insects, sand-hoppers, flies from decayed sea-weed.

Spotted Sandpiper (*T. macularius*). Coarse gravel, minute worms.

Greenshank (*T. glottis*). Marine insects, fine sand.

Blacktailed Godwit (*Limosa melanura*). Marine insects, sand.

Woodcock (*Scolopax rusticola*). Insects, earth-worms.

Great Snipe (*S. major*). Earth-worms.

Common Snipe (*S. gallinago*). Earth-worms, insects, fibres of plants.

Jack Snipe (*S. gallinula*). Fibres of plants, mud.

Curlew Sandpiper (*Tringa subarquata*). Marine and fresh-water insects, sand.

Knot (*T. Canutus*). Marine and other insects, slugs, earth-worms, small marine univalves and bivalves.

Little Stint (*T. minuta*). Marine and fresh-water insects.

Dunlin (*T. variabilis*). Marine and other insects, small slugs, earth-worms.

Purple Sandpiper (*T. maritima*). Marine insects, small univalves, minute aquatic plants.

Land Rail (*Gallinula crex*). Small beetles.

Spotted Crake (*G. porzana*). Insects, small seeds.

Little Crake (*G. pusilla*). Small beetles.

Moorhen (*G. chloropus*). Insects, aquatic plants.

Water Rail (*Rallus aquaticus*). Earth-worms, small beetles.

Coot (*Fulica atra*). Aquatic plants.

Graylag Goose (*Anser ferus*). Grass.

Brent Goose (*A. bernicla*). Sea-weed, coarse sand.

Common Shieldrake (*Anas tadorna*). Marine insects, shrimps, small crabs, sand.

Shoveller (*A. clypeata*). Aquatic insects, mud, coarse sand.

Pintail Duck (*A. acuta*). Aquatic insects, pieces of small trout.

Wild Duck (*A. boschas*). Aquatic plants, marine and fresh-water insects, small roots, barley, coarse sand.

Garganey (*A. querquedula*). Sea-weed.

Teal (*A. crecca*). Aquatic plants, insects, sand.

Wigeon (*A. Penelope*). Grass.

Eider Duck (*A. mollissima*). Small fish.

Common Scoter (*A. nigra*). Fragments of shells, sand, small stones.

Longtailed Duck (*A. glacialis*). Marine univalves, sea-weed, sand.

Pochard (*A. ferina*). Marine univalves, sand.

Scaup Duck (*A. marila*). Marine univalves, fragments of shells, small stones (usually of a dark colour).

Tufted Duck (*A. fuligula*). Marine univalves and bivalves, fish-spawn.

Goldeneye (*A. clangula*). Small trout, insects, aquatic plants.

Smew (*Mergus albellus*). Fish.

Redbreasted Merganser (*M. serrator*). Fish, shrimps.

Rednecked Grebe (*Podiceps rubricollis*). Small fish.

Sclavonian Grebe (*P. cornutus*). Shrimps, small pieces of sea-weed.

Little Grebe (*P. minor*). Insects and their larvæ, fine roots, pieces of down.

Great Northern Diver (*Colymbus glacialis*). Fish, particularly the sand-launce (*Ammodytes lancea*); common sand-worm (*Arenicola piscatorium*).

Redthroated Diver (*C. septentrionalis*). Trout, small sea-fish, large insects.

Guillemot (*Uria troile*). Fish, small fragments of sea-weed.

Ringed Guillemot (*U. lacrymans*). Fish.

Black Guillemot (*U. grylle*). Fish, small crabs, marine univalves.

Little Auk (*U. alle*). Bones of small fish.

Puffin (*Mormon fratercula*). Fish, shrimps, sand.

Razorbill (*Alca torda*). Fish.

Cormorant (*Carbo cormoranus*). Trout, plaice, eel, sand-launce, sillack, or young of the coal-fish (*Gadus carbonarius*).

Shag (*C. cristatus*). Plaice, sillack.

Gannet (*Sula bassana*). Fish.

Common Tern (*Sterna hirundo*). Sand-launce.

Arctic Tern (*S. arctica*). Fish, large beetles, moths.

Blackheaded Gull (*Larus ridibundus*). Fish, insects, grubs, slugs, small snails, earth-worms, fine roots of plants.

Kittiwake Gull (*L. tridactylus*). Fish, aquatic plants, small beetles.

Ivory Gull (*L. eburneus*). Fish, blubber.

Common Gull (*L. canus*). Flesh, fish, insects, earth-worms, slugs.

Lesser Blackbacked Gull (*L. fuscus*). Fish, insects, sea-weed, barley.

Herring Gull (*L. argentatus*). Flesh, fish, insects and their larvæ, slugs, earth-worms, fragments of shells, *crabs of various kinds, star-fish, Echini*, grain, turnip, coarse sand.

Great Blackbacked Gull (*L. marinus*). Flesh, *young of cormorant*, fish.

Glaucous Gull (*L. glaucus*). Flesh, blubber, fish.

Richardson's Skua (*L. Richardsoni*). Fish, *eggs of common gull*.

Manx Shearwater (*Puffinus anglorum*). Bones of fish.

Storm Petrel (*Thalassidroma pelagica*). Pieces of fish-liver.

HENRY L. SAXBY.

Balta Sound, Shetland,
September 24, 1861.

Occurrence of the Spotted Eagle near St. Columb, Cornwall. — Another specimen of this rare eagle has made its appearance in Cornwall during the past week. It was shot in the parish of St. Mawgan, near St. Columb, and it was reported in the local papers as being the golden eagle. The bird was sent to Mr. Vingoe for preservation, and in this way it has come under my immediate observation. I have examined it minutely this morning, and it is quite as good a specimen, and pretty nearly in the same state of plumage, as the one shot at Trebartha in December last. Both are in the state of plumage denoting them to be birds of the year, with the yellow spots and blotches on the quill and scapularies extending over a considerable portion of the feathers. In the specimen now under notice the yellow over the back and scapularies is even more predominant than in my bird, and there is also a greater amount of yellow mixed with brown on the belly and under parts, approaching to almost a pure buff-yellow on the under tail-coverts and the thighs; the ciliated feathers on the neck have the extremities rather paler than in my bird. The bird was gorged with horse-flesh, and in very low condition. Length 2 feet $3\frac{1}{8}$ inches. — *Edward Hearle Rodd; Penzance, November* 6, 1861.

Occurrence of the Rosecoloured Pastor near York. — A beautiful specimen of this rare bird has been shot, and another seen, in this neighbourhood. The cock bird was shot, and he was in full feather.—*J. Ranson; York.*

Tomtit's Nest in a Stone Bottle.— A large stone bottle, having been left in our garden to sweeten, was taken possession of by a tomtit, who built a nest in it. Although the bottle was wanted, it was given up, and in due time the young ones were introduced into the world through a bottle neck. The tomtit is called in Yorkshire "billy biter."—*Id.*

Extraordinary Gathering of Magpies. — Never having heard that magpies either congregate or fly in flocks, I was greatly surprised, on returning from a drive yesterday, about 5 o'clock P.M., to see a number of these birds fly out of some old trees close to this village, and join in the air at a little distance from the trees (at about the same elevation as their highest branches from the ground), and sufficiently close to enable me not only to distinguish the black and white feathers of their plumage, but also the peculiar fan-like expansion of their tails when flying. I counted twenty, and believed there were a greater number in the flock, which flew very close together: my servant says he counted twenty-one. Is this a common occurrence?—*F. Battersby; Balnalack, Rathowen, West Meath, October* 30, 1861.

The Tree Sparrow (Passer montanus). — The tree sparrow is very common in this neighbourhood (ten miles west of York). They are less than the house sparrow, and are here called redheaded sparrows, from the colour of the feathers on the head, which are more or less of a reddish brown. The cock of the house sparrow may be readily distinguished from the female by the darker colour of the feathers on the head, and the patch of black feathers which extend from the base of the bill a considerable way down the breast, and which are entirely wanting in the female. In the tree sparrow these black feathers are found extended from the base of the bill down the breast in both sexes. The nest is generally placed in a hole in a tree (old pollards are preferred), and sometimes (but rarely) in a hedge, in which case the nest is domed, with a hole in the side for admission. The interior of the nest is a mass of poultry-feathers. The eggs are smaller, rounder, and of a darker colour than the eggs of the house sparrow. Last year above a hundred eggs passed through my hands, and I found less variety in them than in those of the eave sparrow, whose eggs vary in shape and colour more than any other birds' eggs that I know of. Great numbers of the tree sparrows are caught here in traps every winter, when they seek the shelter of the fold and stack-yard, and are sold to the constable for a halfpenny each.—*J. Ranson ; York.*

Cuckoos' Eggs in Reed Warblers' Nests.—With reference to Mr. Ramsden's description (Zool. 7757) of a young cuckoo having been found by him in a reed warbler's nest, I can certainly state, on my own experience, that such an event is by no means uncommon. I am aware that Yarrell does not include the reed bird's nests amongst those in which cuckoos' eggs are generally laid, nor was it inserted either in a recent list published in the 'Field;' yet I believe that any one accustomed to watch the habits of our marsh birds in those most favourable of all districts, the "Norfolk broads," would be able to recall more than one instance of the cuckoo's egg being found in the deeper hollow of the reed bird's structure. During the last summer no less than four cases have come under my own notice, and those under somewhat peculiar circumstances. About a mile from this city, at a place called Harford Bridges, a large reed-bed by the river-side adjoins a garden belonging to some neighbouring cottages. In this one locality four or five nests of the reed warbler have been found, built into various bushes, such as currant, alder, gooseberry, &c., yet still retaining their ordinary character, the materials being carefully wound round two or more twigs in each bush, in the place of the reed-stems, their more usual support. The green leaves hanging over the nests in these cases have an exceedingly pretty effect, and in one instance bunches of currants as well hung temptingly over the entrance to this compact little edifice. Whether the unusual locality of these various nests took the fancy of the cuckoos in that district, the access to them being easier than when built on the reeds, I cannot determine; but three out of the four contained cuckoos' eggs, and the fourth, discovered later than the rest, had a cuckoo as its only tenant. Anything more absurd than the appearance of this "big baby," firmly wedged into the nursery of its foster-parents, it is impossible to conceive, the utter disproportion between the nest and its occupant being only equalled by the contrast between the poor little reed birds and this infant Hercules. Other instances in which both eggs and young have been found, as in Mr. Ramsden's case, in ordinary nests suspended on the reeds, have from time to time come under my notice. There can therefore be no reason for any longer excluding the reed warbler from the list of feathered unfortunates to whom the cuckoo intrusts the rearing of its progeny.—*H. Stevenson ; Norwich, October* 26, 1861.

Curious Anecdote of the Common Partridge.— Last year a partridge, having made a nest and laid fourteen eggs, began to sit, but was driven off by a domestic hen, who took her place and continued to sit upon them until they were hatched, when the mother took away the young ones from the hen. I was told, before the young ones were hatched, that such would be the case, but I was incredulous.—*J. Ranson ; York.*

Wild Swans at Swansea. — A flock of wild swans passed over our bay on Monday last. One of them was shot on the sands near Riston ferry ; it proved to be a young bird.—*D. Williams ;* 56, *Wind Street, Swansea, October* 30, 1861.

Occurrence of Richardson's Skua at Horning Fen. — On Saturday last a fine example of Richardson's skua was brought to my house by a labourer, who shot it at Horning, in the midst of a snow storm in the fens. — *W. Winter ; Aldeby, November* 9, 1861.

The Poison of the Toad.—The most deadly poison known to be used by the slaves in Brazil is that of the toad. The skin of this reptile contains glands which secrete in abundance a milky glutinous fluid when the toad is put to pain or irritated. This is scraped off and dried. It produces incurable obstruction and enlargement of the liver, and a speedy death. Some beat the toad with rods to make it secrete the venom, others place the animal in an earthen vessel over a slow fire.—*R. de Gambleton Daunt, in 'Dublin Medical Press,' September* 25.

Occurrence of the Sword-fish on the Norfolk Coast. — On the 30th of October a sword-fish was obtained at Mundsley, in Norfolk. The fish, which is said to have been seen occasionally near the same locality for some days previously, was on this occasion observed in some shallow water, and, being in fact partially stranded, was captured by a noose being passed over its tail, after which it was drawn on shore. The length of this specimen, from the tip of the sword to the centre of the tail, was nine feet five inches, the sword alone being three feet in length. The stomach of the fish was empty. Its flesh, when dressed, was white and palatable, and not unlike that of the sturgeon.—*J. H. Gurney ; Catton Hall, Norwich, November* 4, 1861.

Mode in which Pholas perforates solid Substances. — During a walk on the rocks, between tideways, at Brighton, a few days back, my attention was drawn to a quiet shallow pool, the sandy bottom of which was discoloured by several white patches, each about the size of a shilling. On examination these patches appeared to be heaps of powdered chalk (the rocks are upper chalk), surrounding the mouths of holes of Pholades. That they were ejected by Pholades, and were no doubt the products of their work in excavating the rock, was shown almost immediately by a cloud of the white dust being discharged from one of the Pholades and settling down on the heap around it. Thinking it just possible that this observation may be deemed worthy of record, as pointing to the mechanical action of the Pholades' mode of excavation, I take the liberty of forwarding it to the 'Zoologist.' On a subsequent day I watched a Pholas in a similar pool, to ascertain the rate at which it works. Several in the pool were excavated, though the proportion of workers was not large compared with the whole number of Pholades in the pool. My attention was entirely directed to one specimen separated from the rest. Although the tide had receded from the pool for some time, the animal appeared to have thrown out but one discharge of chalk, or of the white powder, which I assume to be chalk-dust. After watching it for about a quarter of an hour, there was a discharge chiefly of chalk. In six minutes more there was another with scarcely any chalk, and due apparently to the animal's siphons being irritated by some extraneous substance. In the course of the next minute there were perhaps two or three discharges of water and a little sand, but no chalk. For the next three-quarters of an hour there was no further discharge of chalk, although I could not unfrequently see the siphons moving from side to side within the hole. This animal appears to have been working very slowly. — *R. Hudson ; Rowington, near Warwick.*

Carnivorous Taste of Limax maximus. — Our dairy window is overhung by ivy, in which the black-striped snail finds a shelter. These snails frequently make their way through the lattice window into the dairy shelf, where the meat is kept, and I have frequently found them feeding on raw beef. Mr. Curtis has remarked this liking of Limax maximus for flesh.—*J. Ranson ; York.*

Economy of Apatura Iris: — Dr. Maclean, to whom I am indebted for the early history of this lovely butterfly, watched a female deposit two eggs on the upper side of two leaves of Salix Capræa (the sallow), on the 16th of July: the egg somewhat resembles a fossil Echinus which has lost its spines. One of these eggs the Doctor took home, and it hatched on the 25th of July, just nine days after it was laid ; the egg left on the leaf where its parent had deposited it hatched on the 28th of the same month, having been in the egg state twelve days. The little larvæ are of a dark brown colour: on the eighth day after being hatched they change their skin, and then are furnished with two horns or processes, attached to and forming part of the head ; and it is curious that now, on the first appearance of these horns, they are proportionally larger and longer than at any other period of the creature's larval life. With this first change of skin the larva loses every tinge of its original brown colour, and becomes exactly of the same hue as the sallow-leaf on which it feeds : a portion of the leaf is consumed every day, but the mid-rib is left intact; and the little creature, when resting from its alimentary labours, climbs to the denuded bristle-like tip of this mid-rib, and there remains perfectly motionless, with the anterior extremity raised as we see it in the larvæ of Sphinx Ligustri and Dicranura vinula. Dr. Maclean's larva continued this mode of life until the 15th of November, when it descended from the leaf, and, covering with silk the rind of the twig immediately below the attachment of the leaf, grasped this web firmly with its claspers ; stretched itself out at full length, with its horns porrected before it, and thus settled itself down to endure the winter's cold and the winter's storms. This is always the case; its *modus operandi* is the same whether in a state of nature or in the vivarium of an entomologist. Instinct, that infallible and inscrutible guide, tells the unreasoning larva that dehiscence of the leaf-stalk will take place after the first frost, and that the leaf will fall to the ground: the leaf does fall, but not until its falling is a matter of indifference to the larva; not until the larva has attached itself so firmly to the twig that neither wind nor rain can remove it. In the ensuing spring, the same influences which compel the sallow to throw out new twigs and new leaves, also resuscitate the torpid or dormant larva; its eating propensities are aroused, and it feeds greedily until the period of its first metamorphosis has arrived. The full-grown larva somewhat resembles a slug in shape, and a sallow-leaf in colour ; the head is of a very peculiar form, each of the lateral divisions being prolonged on the crown into a kind of horn slightly inclining outwards; these horns are green, darker and almost black at the tips, and the space between them is of a pale yellow colour, approaching to white, but there is a pointed triangular green plate above the mouth, which enters into and almost divides the yellow part: the body is green, stoutest in the middle, and tapering to each end, but mostly towards the tail, where it terminates in two sharp points, parallel, closely approximate and directed backwards: on each side is a narrow yellow stripe traversing the region of the spiracles, and extending the entire length ; and besides this there are seven oblique yellow stripes on each side, all of them commencing near the straight lateral line already described, and running upwards and backwards, but not meeting on the back: the third of these lines is the longest; each segment of the body has also several series of yellowish white and slightly raised dots completely encircling it. About the middle of June the larva suspends itself by the tail, and in that position changes to a stout and rather awkward-looking pupa, the wing-cases of which are dark green, and the abdomen yellow-green, with very faint indications of paler oblique lateral stripes, similar to those I have already described in the larva. The head hangs downwards, and terminates in two small points or ears. The perfect insect appears on the wing early in July, and the male has always been celebrated for his lofty and graceful flight: he is particularly fond of the oak, and, after wearying himself with aërial gambols above and around some lofty monarch of the wood, will settle on a leaf, and remain stationary until another male makes his appearance, when the first will leave his station and join the intruder in what appears to be an amicable struggle in the air, each striving to get above the other: when tired of this exercise, each butterfly will often descend to the identical leaf from which he rose, and again close his wings as if at rest. The female flies but seldom, usually remaining on the stems or twigs of the underwood, where she is sought by the male. These beautiful butterflies seem to be attracted by the odour of putrefying flesh, or even still more disgusting substances, and with uncoiled maxillæ may occasionally be found feasting on the moisture which oozes therefrom. I regret that I cannot represent them as banqueting on the nectar of flowers, or feasting on some equally poetic and appropriate food; but such is not the case; and in these and similar cases of depraved appetite we can only lament a fact as incontrovertible as it is unsatisfactory, repeating the somewhat trite but ever sapient axiom, *de gustibus non est disputandum.—Edward Newman.*

Description of the Larva of Smerinthus Populi. — Never rolls in a ring or feigns death when disturbed; rests with the head and anterior part of the body slightly elevated. Head somewhat triangular, the apex of the triangle being the crown of the head: body decidedly but very gradually attenuated in front, and as gradually increasing behind to the 12th segment, which bears a very short, nearly straight, obliquely pointed horn; body throughout transversely folded, the interstices of the folds rather deeply incised in front. Head shining, apple-green, with two bright yellow lines approaching on the crown, where they are often tipped with pink, and distant at the mouth; body yellow-green, rough with minute points like shagreen; these points are yellow, and are mostly arranged on the summits of the folds, but also forming seven very perceptible oblique lines on each side; each of these commences near a spiracle, and extends upwards and backwards, the seventh terminating in the horn, which is reddish at the base, pale at the summit, and very scabrous: the spiracles are usually accompanied by, but not included in, a pink marking. There is a beautiful and not uncommon variety of this larva, which has a series of ten conspicuous and nearly square red spots on each side of the back, one just in advance of each oblique line already described. Feeds on various species of Populus (poplar) and Salix (sallow); full fed in August and September, when it descends to the ground, and changes to a rough and always dirty-looking pupa, on or very near the surface of the ground, where it remains throughout the winter. I have never seen any indication of either an earthen or silken cocoon.—*Id.*

Description of the Larva of Nola cucullatella. — Rolls itself in a ring and falls off its food-plant, feigning death, when disturbed. Head small: segmental divisions of the body strongly marked, each segment having six prominent shining warts, and each wart emitting a number of radiating bristles. Head black, shining, with a white median stripe; body mottled with dark smoke-colour and dingy white, the white forming a very obvious but narrow median dorsal stripe: all the warts are testaceous: legs intensely black and shining; claspers and belly greenish gray. Feeds on Cratægus Oxyacantha (whitethorn), and is full fed at the end of May, when it spins a compact cocoon, attached to the stem of its food-plant. The moth appears about the end of July. I am indebted to Mr. Thomas Huckett for this larva, as well as the two which follow.—*E. Newman.*

Description of the Larva of Callimorpha dominula. — Rolls in a compact ring and falls off its food when touched. Segments distinctly marked, each bearing nine or ten shining black warts or excrescences, and each wart emitting a number of diverging bristles. Ground colour of the body velvety opaque black, but interrupted by and adorned with three longitudinal series of compound bright yellow spots: each series is composed of eleven such spots; one series dorsal and median, the others lateral; and in the lateral series the yellow spots alternate with others of a snowy whiteness, but much smaller: legs black, shining; claspers and belly blue-gray. The spines on the back are black, on the sides white. Feeds on various herbaceous plants, particularly Cynoglossum officinale (hound's-tongue) and Urtica dioica (stinging nettle). The egg is laid about Midsummer, and the young larva hybernates at the root of its food-plant; in April it again commences feeding, and is full fed in May, when it spins a loose cocoon among the leaves of its food-plant, and there changes to a chrysalis: the moth appears on the wing about Midsummer.—*Id.*

Description of the Larva of Crocallis elinguaria. — Rests in a nearly straight position; does not fall off its food-plant or feign death when disturbed. Head prone, partially withdrawn beneath the skin of the 2nd segment. Segments of the body slightly swollen beneath; back of 12th segment slightly raised, the raised portion crowned with two small transversely placed warts, each of which emits a short black bristle; similar short black bristles are scattered over every part of the body. Colour of both head and body uniform grayish brown, unadorned by any markings susceptible of definition. Feeds on Cratægus Oxyacantha (whitethorn), makes a slight cocoon in the surface of the earth, and the moth appears in July.—*Id.*

Description of the Larva of Cidaria dotata.—Rests on the posterior legs, with the head erect and the prolegs contracted. Smooth, without humps or warts, long and slender, attenuating towards the head. Pale yellowish green; dorsal line darker; subdorsal lines pale yellow, indistinct. Feeds at night, on the black currant (*Ribes nigrum*). Habit very sluggish, remaining sometimes for several days on one twig, feeding on all the leaves within its reach before changing its position. The eggs were laid on the 3rd of August, and hatched in the second week of April. Full fed at the beginning of June. Spins a slight cocoon on the surface of the ground. Pupa pale yellow, semitransparent. The perfect insect appeared at the end of June.—*Percy C. Wormald;* 10, *Priory Road, Kilburn, November* 6, 1861.

Sugaring on a Turf Moss.—During the months of August and September I went to our mosses nearly every night, to try what I could take on the heath-blossoms. I tried for nearly a fortnight with little success, only catching a few Celæna Haworthii before dark; they were flying at a most furious rate. By sweeping I got next to nothing,—only plenty of Noctuæ and the larvæ of Eupithecia. Then I visited the ragwort-blossoms on the edge of the moss, but only took a single C. Haworthii, plenty of Agrotis nigricans, a few A. aquilina, and a fair number of common species.

The next plan I resorted to was to take a lot of ragwort and plant it on bare parts of the moss, giving it a good sprinkling with sugar, with a double dose of rum, to counteract the opposition of the heath-bloom: this was the key to the business. I soon had C. Haworthii by the score, Apamea nictitans and Agrotis agathina every night, and hundreds of other Noctuæ and beetles in profusion. I killed a great number of the common species, because they ate the sugar off so fast; and it was the means of bringing plenty of Carabus granulatus prowling about, dragging moths away and seizing them when alive after being shook off the flowers. Frogs and toads mounted the flowers to share in the feed. I was most surprised to find Orgyia antiqua a visitor; it dropped down, when shook off, in the same manner as the Noctuæ, until I pinned it. Gortyna flavago, Plusia festucæ and Heliothis peltigera were visitors. I noticed one insect, namely, Luperina testacea, was feeding on reeds close by, along with Nonagria fulva: neither of these species was tempted from its ordinary fare. I also saw what I supposed to be glow-worms: I turned my lamp on, to show them to a man that was with me, but none could I find, only Nebria running about: the Rev. A. Matthews' article on the phosphorescent appearance of N. brevicollis (Zool. 7803) at once gave me a clew to my vanished luminaries of the night.—*J. B. Hodgkinson; Penwortham Mill.*

Capture of Dasypolia Templi in Ireland. — As a worthy finish to my collecting in Ireland, I have had the pleasure of taking, at the end of October, several fine specimens of Dasypolia Templi on the coast near Dublin. — *Charles G. Barrett; Camelon, near Falkirk, November* 6, 1861.

Description of the Larva of Aplecta tincta. — Falls off its food-plant, feigns death, and rolls itself in a ring when touched or disturbed. Head small in proportion to the body: body soft, fleshy, the divisions of the segments very distinctly marked by depressed rings; on the segments themselves are numerous depressions; and along the sides, in the region of the spiracles, are various conspicuous skin-folds. Head very shining, testaceous-brown: body pale raw-sienna brown, irrorated with both white and black markings, so small as to be scarcely perceptible to the naked eye, and having also a very inconspicuous double median dorsal stripe composed of black dots, the intervening very narrow space being nearly white; the spiracles are black: the legs and claspers of the same colour as the body. Feeds on Betula alba (birch), and appeared nearly full grown at the end of October. I am indebted to Mr. G. Mawson for specimens of this larva, which he bred from the egg.—*Edward Newman.*

Orodesma apicina a Native of Honduras.—It is stated by Mr. Douglas (Zool. 7768) that the only known specimens of Orodesma apicina have been captured in England. I beg to state that a specimen is in the Norrisian collection, with many other undescribed Noctuæ taken by the late Mr. Haskine in Honduras. — *Samuel Carter; 20, Lower Mosley Street, Manchester, November* 1, 1861.

Economy of Achroia grisella.—Before I left home I had the pleasure of observing this species under favourable circumstances. In June I obtained a number of hybernated larvæ, and placed them in a glass case. The way in which they formed galleries was very interesting; they worked under cover, spinning their web loosely and then thrusting it forward. At the slightest disturbance they became perfectly motionless. In the beginning of July perfect insects began to make their appearance in my case, and I went to the apiary from which I obtained the larvæ, and found perfect insects there in great abundance. They flutter much as bees do before the entrance of the hive. The males are usually much smaller than the females. I shut up a male and a female together. I did not observe them *in cop.*, but in a few days I saw the female laying eggs. Her ovipositor was very long, and she felt about with it before laying an egg, as if in search of a spot suited to her purpose. The eggs were of a regular oval, and of a milk-white colour. I left home before they were hatched.—*Thomas Fyles ; Point Levi, Canada, August* 6, 1861.

Note on the Larvæ of the Genus Depressaria.—During the present summer I found large quantities of larvæ feeding at the top of thistles, both on the leaves and in the stem. I expected of course to take a few scores of Depressaria carduella: what should they turn out to be but D. angelicella, the same as those I was breeding from Angelica! I also found some scores of larvæ feeding on Angelica sylvestris: they were all Depressaria pimpinella, not a very common species. When I was in Cumberland, a short time ago, my friend Mr. G. Mawson had bred several Depressaria nervella from henbane (*Hyoscyamus niger*). I have bred D. liturella, D. atomella, D. arenella, and D. ocellella from umbelliferous plants.—*J. B. Hodgkinson ; Penwortham Mill.*

Cynips Rosæ spinosissimæ. — Visitors to the sea-side in the summer months must have noticed the curious red balls that beset the pretty little burnet rose (*Rosa spinosissima*). Hardly any part of the plant seems free; the calyx itself is made to assume unnatural proportions, while the stem and leaf-stalks offer a series of little wens of varied size and form. These are the work of a tiny gall-fly (*Cynips*) that pierces the plant and causes the sap to stagnate in these strange excrescences. Each ball is usually tenanted by a single Cynips, which finds therein its nutriment and shelter till it puts on wings and leaves its singular home. The galls are smooth, thus differing from the bedeguar of the hedge rose. This circumstance, I may remark, is the more strange when we consider how much more spiny is the stem of the burnet rose than that of our friend of the green lanes and hedges. I have lately hatched several of this Cynips. Its characters are here given :—

CYNIPS ROSÆ SPINOSISSIMÆ, *Inchbald.*

Colour black. Antennæ geniculated, hairy. Head and thorax dull black, pitted and dotted over with gray pile. Abdomen shining black. Legs black, with the tarsi paler. Insect much smaller than the Cynips Rosæ.—*Peter Inchbald ; Storthes Hall, August* 30, 1861.—*Intelligencer.*

Correction of an Error in Name.—The insect named by me as Eupœcilia dubitana (Zool. 7860) is identical with Eupœcilia albicapitana described by Mr. Cooke in the same page: I was not aware of this until it was pointed out to me by Mr. Cooke at Liverpool.—*Charles G. Barrett ; Camelon, near Falkirk, November* 6, 1861.

Descriptions of Larvæ.—Most earnestly do I entreat assistance in this department of the science of Entomology: Mr. Crewe, Mr. Hellins and Mr. Buckler have already exerted themselves nobly in this good cause, and I would far rather publish their descriptions than my own; but when entomologists decline the trouble, and will favour me with the specimens, I shall be only too happy to devote my time to the task. May I also venture on a request that the six thoracic legs should always be called "legs," and the abdominal appendages "claspers"? — the term "prolegs," properly meaning "fore legs," is used without any rule or regularity, and is therefore objectionable: after reading Mr. Wormald's otherwise excellent description (Zool. 7822) of the larva of Cidaria notata, I am quite unable to decide whether legs or claspers are intended by the term "prolegs."—*Edward Newman.*

Printed by E. Newman, 9, Devonshire Street, Bishopsgate Street, London.

BRITISH 27 OC 79

TO SUBSCRIBERS.

Owing to the great interest excited by some of the papers published during the present year several of the numbers are likely to become out of print. I particularly recommend those Subscribers who have not yet completed their sets to obtain

The JANUARY number, containing Mr. Adams' paper "On Crustacea observed Abroad."

The FEBRUARY number containing Dr. Wallace's paper "On removing Grease from Lepidoptera."

The MAY number, containing the History of, and List of Subscribers to, the 'Zoologist' Testimonial.

The JUNE number, containing Mr. Doubleday's "Notes on new Eupitheciæ."

The AUGUST number, containing Mr. Spence Bate's paper, "The Crab and its Allies."

I publish this recommendation to Subscribers to make up their sets for their accommodation only: making up, or obtaining, the Volume for 1861 will, in the course of a few months, be impossible, except by the occasional and most uncertain purchase of second-hand copies.

I regret to have excluded Colonel Newman's paper "On the Song of Birds" from the present number: it will commence the Volume for 1862. The Proceedings of the Entomological Society, Mr. May's Translations from the Dutch, and other valuable papers have also been crowded out.

Insects for Sale.

WILLIAM FARREN, of No. 1, Rose Cottage, Cambridge, has, among many others in fine condition, the following Lepidoptera for sale:—

	s.	*d.*			*s.*	*d.*	
Thecla Pruni	1	6	each	Neuria Saponariæ	0	4	each
Sudaria Senex	1	0	...	Epunda lichenea	0	6	...
Callimorpha Dominula	0	6	...	Pyralis margaritalis	1	6	...
Zeuzera Æsculi	0	9	...	Botys lancealis	0	6	...
Phragmatæcia Arundinis	1	6	...	Anticlea berberaria	1	6	...
Noctua despecta	5	0	...	Harpalyce sagittaria	3	6	...
Agrotis cinerea	5	0	...	Collix sparsata	1	0	...
... pyrophila	2	6	...	Araxes lotella	0	3	...

Insects for Sale.

HENRY ROGERS, Freshwater, Isle of Wight, has very fine Specimens of the following Insects on hand, at the following prices:—

	s.	*d.*			*s.*	*d.*	
Coleophora sallinella, pupæ of	2	0	⅌ doz.	Agrotis lucernea	1	0	each
Agrotis lunigera	2	0	each	Heliophobus hispidus	2	0	...
... obelisca	1	0	...	Pterophorus spilodactylus	0	6	...

The above are all in the finest condition, equal to bred specimens. H. ROGERS has many others on hand: he has also a large Collection of BIRDS and BIRDS' EGGS, priced Lists of which will be forwarded on application as above.

CONTENTS.

Quadrupeds.—The King of the Gorillas, 7809.

Birds.—Notes on the Food of Birds, *Henry L. Saxby, Esq.*, 7809. Occurrence of the Spotted Eagle near St. Columb, Cornwall, *Edward Hearle Rodd, Esq*, 7817. Occurrence of the Rosecoloured Pastor near York; Tomtit's Nest in a Stone Bottle, *J. Ranson, Esq.*, 7817. Extraordinary Gathering of Magpies, *Mrs. F. Battersby*, 7817. The Tree Sparrow, *J. Ranson, Esq.*, 7817. Cuckoos' Eggs in Reed Warblers' Nests, *H. Stevenson, Esq*, 7818. Curious Anecdote of the Common Partridge, *J. Ranson, Esq.*, 7818. Wild Swans at Swansea, *D. Williams, Esq.*, 7818. Occurrence of Richardson's Skua at Horning Fen, *W. Winter*, 7818.

Reptiles.—The Poison of the Toad, 7819.

Fishes.—Occurrence of the Sword-fish on the Norfolk Coast, *J. H. Gurney, Esq., M.P.*, 7819.

Mollusks.—Mode in which Pholas perforates solid Substances, *Rev. R. Hudson*, 7819. Carnivorous Taste of Limax maximus, *J. Ranson, Esq.*, 7819.

Insects.—Economy of Apatura Iris, *Edward Newman*, 7820. Description of the Larva of Smerinthus Populi; of Nola cucullatella; of Callimorpha dominula; of Crocallis elinguaria, *Edward Newman*, 7821, 7822. Description of the Larva of Cidaria dotata, *Percy C. Wormald, Esq.*, 7822. Sugaring on a Turf Moss, *J. B. Hodgkinson, Esq.*, 7822. Capture of Dasypolia Templi in Ireland, *C. G. Barrett, Esq*, 7823. Description of the Larva of Aplecta tincta, *Edward Newman*, 7823. Orodesma apicina a Native of Honduras, *Samuel Carter, Esq.*, 7823. Economy of Achroia grisella, *Thomas Fyles, Esq.*, 7823. Note on the Larvæ of the Genus Depressaria, *J. B. Hodgkinson, Esq.*, 7824. Cynips Rosæ spinossissimæ, *P. Inchbald, Esq.*, 7824. Correction of an Error in Name, *Charles G. Barrett, Esq.*, 7824, Descriptions of Larvæ, *Edward Newman*, 7824.

TO ADVERTISERS.

No periodical has ever stood so high as the '**Zoologist**' as a medium for Natural History Advertisements. The Subscribers are essentially buyers of all sterling works on that Science. The charge is Sixpence per line, but no Advertisement is taken at a lower price than Three Shillings and Sixpence.

Books for Sale.

WOOD'S 'Index Entomologicus,' old edition, bound in morocco; 'Zoologist,' 1857—61; Guenée's 'Deltoides et Pyralites' and 'Noctuelites;' Westwood on 'Insects,' 2 vols.; Morris's 'British Butterflies;' Dallas's 'Elements of Entomology;' Cuvier's 'Animal Kingdom.' For prices and particulars apply to the Rev. W. **Langley**, Linton, Ross, Herefordshire.

Birds' Eggs for Sale.

MR. J. C. STEVENS has been instructed to announce for Sale, early in the coming year, some EGGS sent from LAPLAND, in the last two seasons, by the Collectors instructed and formerly employed by the late John Wolley, jun., Esq. Further notice of the Sale will be given.

38, *King Street, Covent Garden, London.*

Printed by E. Newman, 9, Devonshire Street, Bishopsgate Street, N.E.

JANUARY, MDCCCLXII.

THE ZOOLOGIST:

A

POPULAR MONTHLY MAGAZINE

OF

NATURAL HISTORY,

AND

JOURNAL FOR RECORDING FACTS AND ANECDOTES

RELATING TO

QUADRUPEDS, BIRDS, REPTILES, FISHES, MOLLUSKS,
INSECTS, WORMS, ZOOPHYTES, &c.

THEIR HABITS, FOOD, RETREATS, OCCASIONAL APPEARANCE,
MIGRATIONS, NESTS AND YOUNG.

No. CCXXXVIII.

LONDON:
JOHN VAN VOORST, PATERNOSTER ROW.

Price ONE SHILLING.